

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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|-----------------|-------------|----------------------|---------------------|

08/702,718 03/19/97 MULLER, ROBERT

R AGREVO-1

HM12/0607

EXAMINER

JAMES F. HALEY, JR.  
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EULI, E.

| ART UNIT | PAPER NUMBER |
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1648

17

DATE MAILED:

06/07/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

## Office Action Summary

Application No.  
08/702,718

Applicant(s)

Muller-Rober et al.

Examiner

Phuong Bui

Group Art Unit

1648



Responsive to communication(s) filed on Mar 25, 1999

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claims

Claim(s) 1-26, 28-41, and 43-61 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) \_\_\_\_\_ is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims 1-26, 28-41, and 43-61 are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. The Office would like to thank Applicant for indicating that claims 53-59 were not included in the previous restriction requirement. Accordingly, the previous restriction requirement is vacated in favor of the restriction set forth below. The Office regrets any inconvenience to Applicant.
2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-5, 15, 17-21, 24-26, 28-29, 39-40, 43-52, 56-58, 60 and 61, drawn to transgenic plants having reduced citrate synthase activity and processes of inhibiting flower formation in plants by reducing citrate synthase activity.

Group II, claim(s) 8-14, 16, 17, 20, 30-39, 41, 43-57 and 61, drawn to transgenic plants having increase citrate synthase activity and a process for modified flower formation in plants by increasing citrate synthase activity.

Group III, claim(s) 6, 7, 22 and 24-26, drawn to storage organs of plants having reduced citrate synthase activity and a process for improving storage capability of storage organs of plants.

Group IV, claim(s) 23-26, 28 and 29, drawn to a process for reducing sprouting of tubers.

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Group V, claim(s) 59, drawn to a process for isolating homologous sequences from a plant genome.

3. The inventions listed as Groups I, II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I and II are drawn to divergent plants and methods of using the gene encoding citrate synthase in plants to alter flower formation; Groups I-III are drawn to different desired results in divergent organs of a plant, flower versus storage organ versus tuber sprouts; and Group V is drawn to a different process of using the DNA from the processes of Groups I-III.

4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

For Groups II, III and V listed above, the following speciation applies and an election of one of these species is required in response to this requirement:

Species I, DNA encoding citrate synthase of *S. tuberosum*;

Species II, DNA encoding citrate synthase of *N. tabacum*;

Species III, DNA encoding citrate synthase of *B. vulgaris*;

Species IV, DNA encoding citrate synthase of *S. cerevisiae*; and

Species V, DNA encoding citrate synthase of *E. coli*.

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For Groups I, IV and V listed above, the following speciation applies and an election of one of these species is required in response to this requirement:

Species VI, DNA encoding citrate synthase of *S. tuberosum* in anti-sense orientation;

Species VII, DNA encoding citrate synthase of *N. tabacum* in anti-sense orientation;

Species VIII, DNA encoding citrate synthase of *B. vulgaris* in anti-sense orientation;

Species IX, DNA encoding citrate synthase of *S. cerevisiae* in anti-sense orientation;

Species X, DNA encoding citrate synthase of *E. coli* in anti-sense orientation; and

Species XI, use of ribozymes cleaving specifically RNA coding for citrate synthase.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. The claims are deemed to correspond to the species listed above in the following manner:

| Species | Claims |
|---------|--------|
|---------|--------|

|   |                           |
|---|---------------------------|
| I | 9, 33, 34, 43, 46, 49, 53 |
|---|---------------------------|

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|      |                                       |
|------|---------------------------------------|
| II   | 9, 33, 34, 44, 47, 51, 55             |
| III  | 9, 33, 34, 45, 48, 50, 54             |
| IV   | 11, 36                                |
| V    | 12, 13, 37, 38                        |
| VI   | 3, 15, 18, 25, 26, 28, 43, 46, 49, 60 |
| VII  | 3, 15, 19, 25, 26, 28, 44, 47, 51, 60 |
| VIII | 3, 15, 25, 26, 28, 45, 48, 50, 60     |
| IX   | 3, 15, 25, 26                         |
| X    | 3, 15, 25, 26                         |
| XI   | 4, 29                                 |

The following claim(s) are generic: 1, 2, 5-8, 10, 14, 16, 17, 20-24, 30-32, 35, 39-41, 52, 56-59 and 61.

6. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each of these species is a different structural DNA molecule isolated from widely divergent organisms or at least from plants of different genus.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. A preliminary examination of the application indicates that the claims are not in compliance with 35 U.S.C. 112, second paragraph to the extent that it may prevent a proper examination of the claims on the merits. It is suggested that in addition to responding to the restriction requirement set forth above, Applicant should also amend the elected claims to eliminate improper multiple claim dependencies, claim dependency on non-elected claims, and to include at least one positive step in elected process claims in response to this Office action.

10. Papers relating to this application may be submitted to Technology Sector 1 by facsimile transmission. Papers should be faxed to Crystal Mall 1, Art Unit 1648, using fax number (703) 308-4242. All Technology Sector 1 fax machines are available to receive transmissions 24 hrs/day, 7 days/wk. Please note that the faxing of such papers must conform with the Notice published in the Official Gazette, 1096 OG 30, (November 15, 1989).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Bui whose telephone number is (703) 305-1996. The Examiner can normally be reached Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Chris Eisenschenk, can be reached at (703) 308-0452.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

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Phuong Bui  
Patent Examiner  
Group Art Unit 1648  
June 4, 1999

PB  
PHUONG T. BUI  
PATENT EXAMINER